

## I. ACTION SUMMARY

Claims 1, 2, 10-12, 29, 31, 33-34, 38-40, 45, 47, 49-50, 54-56, 64-66 and 78-81 stand pending in this application. The Examiner has argued that claims 1-2, 10-12, 29, 31, 33-34, 38-40, 45, 47, 49-50, 54-56, 64-66 and 78-81 are subject to a restriction/election requirement.

## II. RESPONSE TO THE RESTRICTION/ELECTION REQUIREMENT

### *(i) Argument*

The Examiner is thanked for issuing a second action regarding restriction/election and for clarifying matters from the original restriction/election requirement. The Examiner is also thanked for adding Groups XIV and XV to the restriction/election requirement as well as for the informative rebuttal arguments at pages 7-10 of the present action. Nevertheless, Applicant must continue to traverse the restriction/election requirement.

In the original restriction/election requirement, and as reiterated in the present Office Action, the Examiner has argued that restriction/election was proper under 35 U.S.C. § 121. In response to the original Office Action, Applicant argued that restriction/election is not proper with respect to generic claims or Markush claims. In the present response the Examiner appears to argue that the present claims are not generic and that “the claims are in improper Markush language”.

Regarding the applicability of 35 U.S.C. § 121 to Markush claims, the law is clear. It is never proper for an Examiner to reject a Markush claim under 35 U.S.C. § 121. *In re Watkinson*, 900 F.2d 230, 232, 14 U.S.P.Q.2d, 1407, \_\_\_ (C.A.F.C. 1990). This statement of the law rests upon the well accepted conclusion that as between the ability of The Office to require restriction under 35 U.S.C. § 121 and the ability of the Applicant to claim his invention as he sees fit in accordance with 35 U.S.C. § 112, the Applicant is permitted to claim the invention as he sees fit. *In re Haas*, 580 F.2d 461, 198 U.S.P.Q. 334 (C.A.F.C. 1978) and *In re Weber*, 580 F.2d 455, 198 U.S.P.Q. 328 (C.A.F.C. 1978). Thus, the operative question is whether or not Applicant has used “improper Markush language”.

Factors to be considered in determining whether or not claims are drawn to “improper Markush groups” are discussed in *Harnisch*. *In re Harnisch*, 631 F.2d 716, 206

U.S.P.Q. 300 (C.A.F.C. 1980). According to *Harnisch*, whether or not a Markush group is improper must be determined on a case-by-case basis. *Id.* at 722. When determining the propriety of a Markush group, the following factors must be considered: 1) the groupings must be considered as wholes and not broken down into elements or other components (*Id.* at 722); 2) it is not important that there may be wide variation within the group (*Id.*); and 3) a Markush group must possess at least one property in common that is mainly reasonable for their function as claimed (i.e. is not repugnant to principles of scientific classification and exhibit a unity of invention; *Id.* at 722 and 723).

In the present application, Applicant takes the position that where used, the Markush groups are not repugnant to the principles of scientific classification because they exhibit a common property that is reasonable for their function as claimed and that the common property is supported by experimentation.

For example, Applicant have previously stated that the claims are generic in nature, the exact chemical composition is defined in Markush language and the claims are not directed to a particular nucleobase sequence. It is noted that when using Markush language, for example when defining a chemical composition, the claim is directed to composition wherein the Markush group defines a set of alternative embodiments for the composition. In the present invention, a non-nucleotide probe can be defined in terms of a probe that possesses one of a possible group of suitable alternative nucleobase sequences that exhibit a common property that is not repugnant to principles of scientific classification. Claim 1 for example is directed to a non-nucleotide probe having a probing nucleobase sequence wherein the Markush group of alternative nucleobase sequences all hybridize to human chromosomes albeit not to the same human chromosome. It is believed that the requirement for a non-nucleotide probe (and not just a set of non-nucleotide probes) that binds to human chromosomes is not repugnant to principles of scientific classification and that this is supported by the specification. Accordingly, such use of the Markush group is believed to be proper for claim 1 as well as all other claims where Markush groupings are used.

(ii) *Election*

Because Applicant is required to make a restriction/election in accordance with 37 C.F.R. § 1.143, Applicant provisionally elects Group XIV, Claims 10-12. Applicant nevertheless reiterates traversal of this restriction/election requirement.

III. SUMMARY

It is believed that this response addresses all rejections/restrictions/elections set forth in the present Office Action and the application is in ready condition for allowance. In consideration of the preceding amendments and remarks, Applicant hereby respectfully requests reconsideration of all pending claims, the withdrawal of all rejections set forth in the present Office Action and issue of a Notice of Allowance by The Office.

IV. INTERVIEW

If the Examiner believes a telephonic or personal interview would advance the prosecution of the subject application, the Examiner is invited to contact attorney Gildea during business hours at the telephone or facsimile numbers listed below.

V. FEES

A petition for an automatic three month extension of time under 37 C.F.R. § 1.136 (a) and fee paid pursuant to 37 C.F.R. § 1.17 has been included with the papers accompanying this response. No additional fees are believed due The Office for consideration of this paper. If however, The Office determines that any other fee is due, authorization is hereby granted to charge any required fee associated with the filing of this paper to Deposit Account 02-3240.

VI. CORRESPONDENCE/CUSTOMER NUMBER

Please send all correspondence pertaining to this document to:

Brian D. Gildea, Esq.  
Applied Biosystems  
15 DeAngelo Drive  
Bedford, MA 01730

**COPY OF PAPERS  
ORIGINALLY FILED**

---

Telephone: 781-280-2824  
Fax: 781-280-2940

IF NOT ALREADY DONE, PLEASE MATCH THIS CASE WITH CUSTOMER NUMBER  
23544



**23544**

PATENT TRADEMARK OFFICE  
[Insert Customer Number Bar Code]

Respectfully submitted  
On behalf of Applicant,

Brian D. Gildea, Esq.  
Reg. No. 39,995



Attorney Docket No. BP9806US-CP1

1634/1#  
#13/K.T.  
8/20  
ELECTION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
TRANSMITTAL COVER SHEET

COPY OF PAPERS  
ORIGINALLY FILED

Application Serial No: 09/520,760  
Date Filed: March 7, 2000  
Application Title: Non-Nucleic Acid Probes, Probe Sets, Method and Kits  
Pertaining To The Detection Of Human Chromosomes X, Y,  
1, 2, 3, 6, 10, 11, 12, 16, 17, and 18  
Applicant: Krishan L. Taneja  
Group Art Unit: 1634  
Examiner: Jehanne E. Souaya  
Action Date: April 9, 2002  
Action Type: Restriction/Election Requirement  
Certified Mail No.: 7002 0510 0003 5829 3122

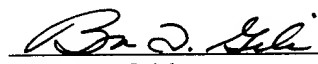
TECH CENTER 1600/2900

AUG 09 2002

RECEIVED

Certificate of Mailing Pursuant to:  
37 C.F.R. §1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to:  
Commissioner for Patents, Washington, DC 20231 on this 1<sup>st</sup> day of August, 2002.

  
Brian D. Gildea  
Reg. No. 39,995

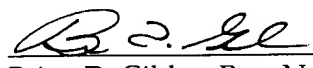
Commissioner for Patents  
Washington, DC 20231

Dear Sir or Madam:

Enclosed herewith, please find the following documents and sheets.

1. Response to the Office Action mailed on April 9, 2002.
2. Petition Under 37 C.F.R. § 1.136(a).

Respectfully submitted  
On behalf of Applicants,

  
Brian D. Gildea; Reg. No. 39,995